

In The Drawings:

Please amend the drawings by replacing Sheet 1/1 of the present drawings with the enclosed Replacement Sheet which is so labeled.

Also enclosed is an "Annotated Sheet" showing the change to Fig. 1 incorporated in the Replacement Sheet namely, in Fig. 1 reference numeral "8" has been deleted in favor of reference numeral "20" to correct the error pointed out by the Examiner. In Fig. 2, a reference numeral "22" has been added to indicate the "region" referred to in the original Specification at page 9, line 3.

No changes have been made to Figs. 3 or 4.

No new matter has been added by way of the Replacement Sheet.

REMARKS

The Examiner is thanked for his prompt recognition that claims 34-38 and 50-57 are drawn to patentable subject matter.

Claim Objections

Claim 33 has been amended to insert "of the mirror element" immediately following the word "circumference." Applicant submits that this recitation is more definite than the Examiner's proposed insertion of the word "thereof." Except for the addition of the phrase "through the mirror element by way of the at least one of the cutouts" the other amendments shown in the claim have been made solely to conform the format of the claim to the format conventionally used in United States Patent Practice and to make the claim more idiomatic.

Claim 37 has been amended in the manner requested by the Examiner.

Claim 39 has been amended in the manner requested by the Examiner.

Claim 45 has been amended as suggest by the Examiner and to provide the appropriate article "an" for the initial appearance of the term "axial direction."

Claim 49 has been amended in the manner suggested by the Examiner as well as in the manner discussed in further detail below.

Claim 55 has been amended suggested by the Examiner. Also, the word "the" has been substituted for "an" in line 3 since the term "optical surface" has an antecedent basis in parent claim 49.

In view of the foregoing, it is respectfully submitted that all of the claim objections raised by the Examiner as to claims 33, 37, 39, 45, 49 and 55 have been addressed and those claims are now in condition for allowance.

Claims 34-48 and 50-57 were also objected to as being dependent on a rejected base claim but the Examiner indicated they would be allowable if rewritten in independent form.

In view of the amendments discussed below to their respective parent claims 33 and 49, it is respectfully submitted that the objections to claims 34-48 and 50-57 have also been overcome and that those claims are likewise in condition for allowance in their present form without necessity of rewriting any of same in independent form.

Objection to the Disclosure

A Substitute Specification is submitted herewith which addresses all of the objections raised by the Examiner with respect to the Specification. The Specification

has been arranged to include appropriate headings as required by the Examiner. With respect to the informality noted on original page 7, line 15, the reference numeral "8" has been replaced with the reference numeral "20" to indicate the housing shown in Fig. 1 and referred to in the original Specification at page 7, line 15. A corresponding change has been made to Fig. 1. This change does not introduce new matter as it merely provides a new reference numeral to indicate the housing clearly shown in original Fig. 1.

At original page 6 line, 21, the word "drawing" has been replaced with "drawings" to reflect that there are plural drawings in the application. At original page 8 line 15 a correction has been made to reflect that the numeral "2" refers to the ordinal number of bearing feet and is not a reference numeral.

Drawing Changes

Sheet 1/1 of the Drawings has been corrected to replace reference numeral "8" with reference numeral "20" in conformity with the amendment to the Specification described above.

To more clearly indicate the "region" which, is now expressly recited in claims 59 and 61, a reference numeral "22" has been added to both the Specification at page 9, line 3 immediately following the word "region" and Fig. 2 has been amended to indicate the reference numeral "22."

A Replacement Sheet 1/2, labeled as such, is provided. For the convenience of the Examiner an Annotated Sheet marked to show the changes made is also provided as part of this Response.

These changes do not add any new matter as they merely entail reference numerals indicating subject matter disclosed in the application as originally filed.

New Claims

New claims 58-60 have been added.

Support for claims 58 and 60 can be found in the original Specification at, for example, page 9, line 5.

Support for claims 59 and 61 can be found in the original Specification at, for example, page 9, lines 1-8 and Fig. 2.

Rejections Under 35 U.S.C. §102

Claims 33 and 49 have been amended in a manner which Applicant submits clearly patentably distinguishes over the Ahmad et al. '671 reference as well as a Ahmad et al. '408 in the other prior art of record. (It is noted that the Examiner did not state the

patent number of the particular Ahmad et al. reference on which the rejection was based, however, it is clear from the text of the Examiner's rejection and the text and drawings of the '408 and '671 patents themselves that the '671 patent was the reference applied by the Examiner). However, to avoid any doubt, Applicant will explain why claims 33 and 49 in their present form patentably distinguish over both the '671 and '408 Ahmad et al. references.

Claims 33 and 49 in their present form now both expressly recite that the recited "cutouts" are arranged between the optical surface and the "bearing points" allow for the passage of a beam of light through the mirror element by way of the cutouts. In view of these amendments, claims 33 and 49 are neither anticipated by, or obvious in view of either or both of those references.

As explained in the original Specification at page 9 lines 3-8, the arrangement as claimed, provides a significant advantage over the prior art, namely, it provides a pathway through the mirror element itself for a beam that would otherwise have to be routed around the mirror element. This structure enables an optical system to be arranged in a more desirable way under circumstances in which requiring the beam to be routed past the outside of the subassembly might not be feasible due to physical space constraints and/or would involve providing less desirable accommodations for routing the beam around, rather than through, the mirror element which could result in a more expensive, and/or less compact design, and/or one whose performance could be inferior to that of an optical system constructed according to this aspect of the invention.

Neither Ahmad et al. '408 nor Ahmad et al. '671 recognize that design constraints can be imposed by requiring a beam to be mounted around a mirror apparatus and they do not disclose or suggest an apparatus that provides the stress decoupling features afforded by the cutouts recited in Applicant's claims while simultaneously providing the option of passing a beam through the mirror element by way of those same cutouts.

As to Ahmad et al. '671, it can clearly be seen with reference to Fig. 1 and Fig. 3 and the associated descriptions thereof that neither the cutouts (27) which the Examiner seeks to analogize to Applicant's recited cutouts, nor any other aspect of the structure disclosed in Ahmad et al. '671, is capable of allowing a beam to pass through the mirror element by way of any opening which provides stress decoupling between the mirror element and its mount. As Figs. 1 and 2 of the '671 patent show, cutouts 27 and 30 are disposed inside a housing 12 which would prevent a beam from passing axially through the mirror element 12 by way of the cutouts.

As to Ahmad et al. '408, Applicant discerns no teaching or suggestion of such an opening. As can clearly be seen from Fig. 2 of Ahmad et al. '408, the entire lower portion of the assembly thereof appears to be completely blocked by structure which is not disclosed as having any openings to allow a beam to pass through the assembly, nor does it expressly or impliedly disclose or suggest providing the structure as presently claimed wherein cutouts are provided which serve to both decouple a mirror element

from its mount and also allow the passage of a beam through the assembly in the axial direction.

In view of the foregoing, it is respectfully submitted that claims 33 and 49 patentably distinguish over the prior art of record including without limitation, Ahmad et al. '671 and Ahmad et al. '408. Accordingly, all claims which depend either directly or indirectly therefrom, are patentable over the prior art of record for at least the reasons just noted.

CONCLUSION

In view of the foregoing, claims and 33-61 are respectfully submitted to be in condition for allowance in their present form.

The Examiner is invited to contact the undersigned by telephone should he find a need to resolve any remaining issues.

Respectfully submitted,

GrayRobinson, P.A.

By: 

Donald S. Showalter, Reg. No. 33,033

CUSTOMER No. 60474

P.O. Box 2328
Fort Lauderdale, FL 33303-9998
(954) 761-7473

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